

### REMARKS

Claims 1-7, 9-22 and 24-39 are currently pending in the subject application and are presently under consideration. Favorable reconsideration of the subject patent application is respectfully requested in view of the comments herein.

#### **I. Rejection of Claims 1, 2, 4-5, 9, 18-20 and 33-35 Under 35 U.S.C. §103(a)**

Claims 1, 2, 4-5, 9, 18-20 and 33-35 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Runyon *et al.* (E.P. 1 104 141) in view of Graves *et al.* (US 2002/0191250). Withdrawal of this rejection is requested for at least the following reasons. Neither Runyon *et al.* nor Graves *et al.*, teach or suggest all limitations of the subject claims.

To reject claims in an application under §103, an examiner must establish a *prima facie* case of obviousness. A *prima facie* case of obviousness is established by a showing of three basic criteria. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second there must be a reasonable expectation of success. Finally, ***the prior art reference (or references when combined) must teach or suggest all the claim limitations.*** See MPEP §706.02(j). The teaching or suggestion to make the claimed combination and the reasonable expectation of success must be found in the prior art and not based on the Applicant's disclosure. See *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

The claimed invention relates to a system and method to facilitate optimized data transfers between an industrial controller and one or more remote client applications. In particular, independent claims 1 and 33 recite similar limitations, namely an industrial control system comprising a primary aggregation component associated with an industrial controller, the primary aggregation component aggregates one or more selected data items into an aggregated subset of data items, ***the primary aggregation component defined and installed by an entity remote from the controller.*** Runyon *et al.* and Graves *et al.*, either alone or in combination, fail to disclose or suggest such recited features.

Runyon *et al.* teaches a system that generates composite packets for transmission over an

internet protocol network. Data communications originating from multiple customer equipments towards a single destination are processed and combined into a composite packet for transmission over an IP network. At the destination, a subsequent process distributes the packets to the designated customer equipment. At page 3 of the Final Office Action, the Examiner asserts that the cited reference teaches ***a primary aggregation component defined and installed by an entity remote from an industrial controller***. Applicants' representative respectfully disagrees. At the indicated portions, the reference teaches an aggregation component that aggregates data communications originating from multiple customer equipments that are sent to a single destination over an IP network *via* a single transmission medium. Nowhere does the cited reference allow a remote entity to specify the precise types of communications to be aggregated for subsequent single packet transmission. By allowing a remote entity to define and install an aggregation component associated with an industrial controller, the claimed invention allows the remote entity to specify desired data items from the aggregation component at the industrial controller. To the contrary, the cited reference is directed towards aggregating data and integrating the various protocols associated with the various types of data into a single transmission medium without contemplating ***a primary aggregation component defined and installed by an entity remote from an industrial controller***, as claimed.

The Examiner attempts to compensate for the deficiencies of Runyon *et al.* with Graves *et al.* Graves *et al.* discloses a communication network for a metropolitan area comprised of three types of nodes. Graves *et al.* does not teach or suggest aggregating remote entity-defined data items at an industrial controller. Consequently, Graves *et al.* fails to provide the optimized transmission of desired data as afforded by the claimed invention *via a primary aggregation component defined and installed by an entity remote from an industrial controller*.

Moreover, claim 20 recites the system of claim 1, further comprising ***at least one of receiving handle information from the industrial controller relating to the selected data items and employing the handle information to update data locations in the industrial controller***.

By employing handle information rather than explicit name identifiers for each desired data item, the claimed invention mitigates the amount of information communicated across a network to the industrial controller when indicating which data item is to be altered. Nowhere do the cited references teach or suggest the updating functionality of desired data items at the remote entity as afforded by claim 20.

In view of at least the foregoing, it is readily apparent that Runyon *et al.* and Graves *et al.*, either alone or in combination, fail to teach or suggest each and every element set forth in the subject claims. Accordingly, this rejection should be withdrawn

## **II. Rejection of Claims 6, 7 and 16 Under 35 U.S.C. §103(a)**

Claims 6, 7 and 16 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Runyon *et al.*, in view of Graves *et al.* and in further view of Bowman-Amuah (US 6,640,244). This rejection should be withdrawn for at least the following reasons. Claims 6, 7 and 16 depend from independent claim 1. As discusses *supra*, Runyon *et al.* and Graves *et al.* fail to teach or suggest all features of independent claim 1, and Bowman-Amuah fails to compensate for the aforementioned deficiencies of the primary references. Accordingly, this rejection should be withdrawn.

## **III. Rejection of Claim 10 Under 35 U.S.C. §103(a)**

Claim 10 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Runyon *et al.*, in view of Graves *et al.* and further in view of Su *et al.* (US 6,625,161). Withdrawal of this rejection is requested for at least the following reasons. The cited references, individually or in combination, do not teach or suggest each and every element set forth in the subject claim. In particular, Su *et al.* does not make up for the deficiencies of James Philip and Graves with respect to independent claim 1 (from which claim 10 depends). Thus, it is respectfully submitted that this rejection be withdrawn.

## **IV. Rejection of Claims 11-13, 15 and 17 Under 35 U.S.C. §103(a)**

Claims 11-13, 15 and 17 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Runyon *et al.*, in view of Graves *et al.* and in further view of Bonneau *et al.* (US 6,657,955). Withdrawal of this rejection is requested for at least the following reasons. Runyon *et al.*, Graves *et al.* and Bonneau *et al.*, individually or in combination, do not teach or suggest each and every element set forth in the subject claims. In particular, Bonneau *et al.* does not make up for the deficiencies of the primary references with respect to independent claim 1 (from which claims 11-13, 15 and 17 depend from). Therefore, withdrawal of this rejection is respectfully requested.

**V. Rejection of Claim 14 Under 35 U.S.C. §103(a)**

Claim 14 stands rejected under 35 U.S.C. §103(a) as being unpatentable Runyon *et al.*, Graves *et al.* Bonneau, *et al.* and in further view of Bhatt *et al.* (US 6,097,399). Withdrawal of this rejection is requested for at least the following reasons. The cited references, either alone or in combination, fail to teach or suggest all features set forth in the subject claim. In particular, Bhatt *et al.* does not make up for the aforementioned deficiencies of Runyon *et al.*, Graves *et al.* and Bonneau *et al.* with respect to independent claim 1 (from which claim 14 depends from). Accordingly, this rejection should be withdrawn.

**VI. Rejection of Claim 3 Under 35 U.S.C. §103(a)**

Claim 3 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Runyon *et al.*, Graves *et al.* and further in view of Bhatt *et al.* This rejection should be withdrawn for at least the following reasons. The cited documents, individually or in combination, do not teach or suggest each and every element set forth in the subject claim. In particular, Bhatt *et al.* does not make up for the aforementioned deficiencies of the primary references with respect to independent claim 1 (from which claim 3 depends from). Therefore, applicants' representative respectfully requests that this rejection be withdrawn.

**VII. Rejection of Claims 21-24 and 27-32 Under 35 U.S.C. §103(a)**

Claims 21-24 and 27-32 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Bowman-Amuah in view of Wang *et al.* (US 6,970,921). Withdrawal of this rejection is requested for at least the following reasons. Neither Bowman-Amuah nor Wang *et al.* teach or suggest all aspects set forth in the subject claims.

Independent claims 21 recites a method to facilitate data communications with an industrial controller, comprising ***requesting tag information from a controller; building an object from the tag information provided by the controller; installing the object on the controller; updating object data on the controller.*** Independent claims 31 and 32 recite similar features. Bowman-Amuah and Wang *et al.* are silent regarding such features set forth in the subject claims.

Bowman-Amuah discloses a system for batching logical requests for reducing network traffic in a transaction services patterns environment. At Page 7 of the Final Office Action, the

Examiner asserts that Bowman-Amuah teaches ***requesting tag information from a controller; building an object from the tag information provided by the controller; installing the object on the controller; updating object data on the controller.*** Applicants' representative respectfully disagrees. At the indicated portions, the reference teaches grouping data packets together and assigning a single tag to the entire collection of data packets in order to facilitate more efficient data transmission. Nowhere does Bowman-Amuah allow for requesting an industrial controller for tag information, let alone allowing for subsequent construction of an object to be installed at the controller that groups data items of interest according to the tag information. To the contrary, Bowman-Amuah employs a tag to a group of data packets for subsequent single delivery to a destination site. Nowhere does Bowman-Amuah *et al.* teach ***requesting tag information from a controller, building an object from the tag information provided, adding data items of interest to the object, and receiving data from the object that has been updated by the controller*** as taught by independent claims 21, 31 and 32 of the applicants' claimed invention.

What is more, Bowman-Amuah is further silent with regard to allowing a remote entity to receive updated data items corresponding to the tag information within the object at the controller. Consequently, Bowman-Amuah fails to teach or suggest ***receiving data from the object that has been updated by the controller***, as afforded by independent claims 21 and 31.

The Examiner attempts to compensate for the deficiencies of Bowman-Amuah with Wang *et al.* Wang *et al.* teaches managing transmission of traffic by network interface cards with a plurality of virtual paths, in network connected systems. However, nowhere does Wang *et al.* construct an object based on tag information associated with desired data items to facilitate single transmission of the desired data items to the requesting remote entity. Consequently, Wang *et al.* is silent regarding ***requesting tag information from a controller, building an object from the tag information provided by the controller, installing the object, updating the object data, adding data items of interest to the object, the data items arranged according to at least one of contiguous and non-contiguous address memory locations and receiving data from the object that has been updated by the controller***, as afforded by the claimed invention.

Moreover, the cited references do not teach or suggest ***employing handle information to update memory locations on the controller***, as recited in claim 30. Since neither Bowman-Amuah nor Wang *et al.* teach constructing an object at the industrial controller based on tag information associated with data items desired by a remote entity, the cited references are further

silent with regard to employing the updating procedure as afforded by claim 30.

In view of at least the foregoing, it is readily apparent that Bowman-Amuah and Wang *et al.*, either alone or in combination, fail to teach or suggest each and every element set forth in the subject claims. Accordingly, this rejection with respect to independent claims 1, 21 and 32 (and the claims that depend there from) should be withdrawn.

**VIII. Rejection of Claims 25-26 Under 35 U.S.C. §103(a)**

Claims 25-26 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Bowman-Amuah, Wang *et al.* and in further view of Graves *et al.* Withdrawal of this rejection is requested for at least the following reasons. As discussed *supra* with regard to independent claim 21, neither Bowman-Amuah nor Wang *et al.*, individually or in combination, teach or suggest all aspects recited in the subject claims. Graves *et al.* does not make up for the deficiencies of Bowman-Amuah and Wang *et al.* with respect to independent claim 21 (from which claims 25 and 26 depend from). Thus, it is respectfully submitted that this rejection be withdrawn.

**IX. Rejection of Claim 36 Under 35 U.S.C. §103(a)**

Claim 36 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Bowman Amuah, Wang *et al.* and in further view of Smith-Semedo *et al.* (US 6,877,010). Withdrawal of this rejection is requested for at least the following reasons. The cited references, individually or in combination, do not teach or suggest all aspects recited in the subject claims. In particular, Smith-Semedo *et al.* does not make up for the aforementioned deficiencies of Bowman-Amuah and Wang *et al.* Therefore, this rejection should be withdrawn.

**CONCLUSION**

The present application is believed to be in condition for allowance in view of the above comments. A prompt action to such end is earnestly solicited.

In the event any fees are due in connection with this document, the Commissioner is authorized to charge those fees to Deposit Account No. 50-1063 [ALBRP284US].

Should the Examiner believe a telephone interview would be helpful to expedite favorable prosecution, the Examiner is invited to contact applicants' undersigned representative at the telephone number below.

Respectfully submitted,

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